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09/646,876	10/05/2000	Yasuharu Suda	198047US0PCT	3995

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EXAMINER

FUNK, STEPHEN R

ART UNIT	PAPER NUMBER
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2854

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/646,876**

Applicant  
**Suda et al.**

Examiner  
**Stephen Funk**

Art Unit  
**2854**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 7
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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The disclosure is objected to because of the following informalities: On page 16 line 18 "hydrophobic" should be --hydrophilic--. On page 25 line 13 the beginning of the sentence should be capitalized. On page 33 line 26 "whichthe" should be separated. On page 36 line 13 --5-- should presumably be inserted after "background portion" so as to reference the background shown in Figure 4. On page 44 line 1 "Fig. 7" should be --Fig. 11--. On page 50 line 22 --25-- should presumably be inserted after "portion", first instance, so as to reference the background shown in Figure 9. On page 71 line 11 "38" should be --37--. On page 88 line 3 "11" should be -51--. On page 9, and throughout the specification and claims, the group "VIa", comprising the elements W, Mo, and Cr, does not correspond to the group listed in, for example, Webster's Dictionary. According to Webster, this group is --VIB--. Additionally, according to Webster, the group "IVb", comprising the elements Ge, Sn, and Pb, should be --IVA--. Appropriate correction is required.

Claims 5 - 7 and 9 - 51 are objected to under 37 C.F.R. 1.75(a) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In each of claims 5 - 7 and 28 - 30 the periodic groups do not correspond to the recited elements. Note the comments above.

In each of claims 9, 10, 13 - 16, 18, 19, 21, 22, 32, 33, and 35 the recitations of the surface of the coat layer being "converted", "reconverted", and "exposed" encompass methods of using the product thus rendering the metes and bounds of the claims unclear.

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In each of claims 13 - 15, 22, and 23 the coat layer "being hydrophilic" lacks proper antecedent basis as it has not been previously recited that the coat layer is hydrophilic.

In claim 16 line 5 and claim 50 line 6 --the-- should be inserted before "titanium oxide" so as to accurately reflect that such has been previously recited.

In each of claims 25 - 34, 48, 49, and 51 it is not clear if the recitation of the "coat layer" is referring to the "coat layer", shown as (3) in Figure 1, recited in claim 1 or the "coating layer", shown as (24) in Figure 7, recited in claim 24. Note, in particular, claim 34 which recites that the remaining hydrophobic surface (of the coat layer recited in claim 33) serves as the printing image portion. However, the hydrophobic portion of the "coat layer" (23) does not function as the printing image portion as the overlying "coating layer" (24) serves this function in this embodiment. Note also claim 51 which recites "renewing the coat layer". However, as addressed above the this renewal would appear to encompass renewing "the coating layer". Note claim 48 last two lines for comparison.

In claims 35 and 40 it cannot be accurately determined how "reaction" and "strong interaction" differ from each other.

Claim 41 appears to recite an apparatus for imaging the product of claim 1.

In each of claims 42 - 46 "a coat layer" and "a titanium oxide photocatalyst", both occurrences, are double recitations of the same in claim 1.

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In each of claims 50 and 51 "the step of preparing", "the step of cleaning", and "the step of renewing" lack proper antecedent bases. In claim 51 "the above described surface" and "the outermost surface" lack any clear antecedent bases.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 - 3, 5, 7 - 13, 22, 41 - 43, and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakayama et al. (US 6,048,654). Nakayama et al. teach the printing plate material as recited and the method of converting and reconvertng the material between hydrophobic and hydrophilic. See the entire document of Nakayama et al.

Claims 4, 6, 23, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. With respect to claims 4 and 6 Nakayama et al. do not specifically disclose the other metal being a compound oxide with titanium or one of the metals W, Mo, or Cr. However, in view of the many types of metals and metal oxides disclosed by Nakayama et al. it would have

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been obvious to one of ordinary skill in the art through routine experimentation to use either a compound metal oxide or any of the other recited metals to achieve similar benefits. With respect to claim 23 it would have been obvious to polish clean the surface to remove any residue. It is noted that the broad recitation of cleaning as recited in claims 22 and 23 does not distinguish from cleaning the ink from the printing plate material, i.e. it is considered as a separate step from the renewing of the surface. With respect to claim 47 it is well known in the art to clean and renew printing cylinders in press.

Claims 14 - 21, 35 - 40, and 44 - 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. in view of D'Heureuse et al. (US 6,318,264). Nakayama et al. do not disclose the recited types of reconvert processes. D'Heureuse et al. disclose either chemically and/or physically reconvert a similar printing plate material. See column 6 lines 10 - 22 and column 10 lines 9 - 24 of D'Heureuse et al., for example. It would have been obvious to one of ordinary skill in the art to reconvert the printing plate material of Nakayama et al. with any of the recited reconvert processes in view of D'Heureuse as a more cost or time efficient alternative method. It is deemed that each of the light energy, electrochemical, and combination reconvert processes would have been obvious to one of ordinary skill in the art through routine experimentation to arrive at optimum renewing of the hydrophilic nature of the printing plate material.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

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Claims 24 - 34, 48, 49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. in view of Gelbart et al. (US 5,713,287). Nakayama et al. do not teach providing a coating layer over the coat layer. Gelbart et al. disclose the conventionality of providing a coating layer (17), comprising a photocatalyst, over a first coat layer (18), comprising a photocatalyst, so as to renew the coat layer. See Figures 2a - 2c, and corresponding portions in the specification, of Gelbart et al. It would have been obvious to one of ordinary skill in the art to provide the printing plate material of Nakayama et al. with a renewing coating layer over the coat layer in view of Gelbart et al. so as to quickly renew the printing plate material. With respect to claims 25 - 34 and 48 note the photocatalyst, and the relevant above discussion, of the coat layer of Nakayama et al. With respect to claims 49 and 51 note that the cleaning and renewing of Gelbart et al. is performed in a printing machine.

Claims 1, 24 - 26, 28, 29, and 31 - 34 are rejected under 35 U.S.C. 102(a) as being anticipated by Kobayashi et al. (WO 99/08158). Kobayashi et al. teach the printing plate material, including the coating layer (112), as recited. See, for example, Figures 3A - 3C of Kobayashi et al.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Funk at telephone number (703) 308-0982. The examiner can normally be reached M - F, except Wednesdays, from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisory, Drew Hirshfeld, can be reached at (703) 305-6619. The fax number for official papers is (703) 308-7722, 7724. Unofficial papers can be faxed directly to the examiner at (703) 746-4393.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at telephone number (703) 308-0956.

Stephen Funk  
January 13, 2002

A handwritten signature in black ink that reads "Stephen Funk". The signature is written in a cursive, flowing style with a large, prominent "S" and "F".

**STEPHEN R. FUNK  
PRIMARY EXAMINER**